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MARKETING & TRANSPORTATION Situation

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MARKET FACTS

Item	Unit or base period	1971				1972
		Year	1st qtr.	3rd qtr.	4th qtr.	1st qtr.
Farm-Retail Price Spreads: 1/						
Retail cost	Dol.	1,244	1,217	1,260	1,252	1,288
Farm value	Dol.	477	467	482	484	510
Farm-retail spread	Dol.	767	750	778	768	778
Farmer's share of retail cost	Pct.	38	38	38	39	40
Retail Prices: 2/						
All goods and services (CPI)	1967=100	121.3	119.5	122.0	122.7	123.7
All food	1967=100	118.4	116.1	119.6	119.4	121.6
Food at home	1967=100	116.4	114.1	117.7	117.2	119.8
Food away from home	1967=100	126.1	123.9	127.1	128.2	129.0
Wholesale Prices: 2/						
Food 3/	1967=100	115.5	113.9	115.8	116.6	119.7
Cotton products	1967=100	110.6	107.5	112.2	112.8	118.1
Woolen products	1967=100	93.4	95.4	92.6	92.1	92.1
Agricultural Prices:						
Prices received by farmers	1967=100	112	110	112	114	121
Prices paid by farmers, interest, taxes and wage rates	1967=100	120	118	120	121	124
Prices of Marketing Inputs:						
Containers and packaging materials	1967=100	113	111	114	114	115
Fuel, power, and light	1967=100	120	118	121	121	124
Services 4/	1967=100	129	125	132	133	---
Hourly Earnings:						
Food marketing employees 5/	Dol.	3.24	3.19	3.26	3.29	3.42
Employees, private nonagricultural sector 2/	Dol.	3.43	3.35	3.46	3.49	3.55
Farmers' Marketings and Income:						
Physical volume of farm marketings	1967=100	109	92	111	147	96
Cash receipts from farm marketings 6/ ..	Bil. dol.	51.6	49.7	52.3	53.8	54.5
Farmers' realized net income 6/	Bil. dol.	15.7	14.6	16.3	17.3	18.3
Industrial Production: 7/						
Food manufacturers	1967=100	114.6	114.2	113.7	115.7	116.6
Textile mill products	1967=100	108.5	104.6	110.0	111.0	---
Apparel products	1967=100	97.9	95.3	97.5	100.2	---
Tobacco products	1967=100	97.7	99.0	98.4	96.8	---
Retail Sales: 8/						
Food stores	Mil. dol.	89,239	22,030	22,405	22,388	22,793
Eating and drinking places	Mil. dol.	31,131	7,628	7,754	8,055	8,255
Apparel stores	Mil. dol.	20,804	5,105	5,161	5,248	5,229
Consumers' Per Capita Income and Expenditures: 9/						
Disposable personal income	Dol.	3,581	3,500	3,466	3,633	3,676
Expenditures for goods and services ...	Dol.	3,199	3,127	3,226	3,261	3,313
Expenditures for food	Dol.	572	565	574	577	581
Expenditures for food as percentage of disposable income	Pct.	16.0	16.1	16.6	15.9	15.8

1/ For a market basket of farm foods. 2/ Dept. of Labor. 3/ Processed foods, eggs, and fresh and dried fruits and vegetables. 4/ Includes such items as rent, property insurance and maintenance, and telephone. 5/ Average hourly earnings of production workers in food processing, and nonsupervisory workers in wholesale and retail food trades, calculated from Dept. of Labor data. 6/ Quarterly data seasonally adjusted at annual rates. 7/ Seasonally adjusted, Board of Governors of Federal Reserve System. 8/ Quarterly data seasonally adjusted, Dept. of Commerce. 9/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. Percentages have been calculated from total income and expenditure data.

MARKETING AND TRANSPORTATION SITUATION

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SUMMARY

Rising charges for assembling, processing, transporting, and distributing U.S. farm foods are expected to exert upward pressure on retail food prices during the remainder of this year. Returns to farmers for these foods may have peaked in the first quarter of 1972 and are expected to weaken seasonally toward the end of the year. For 1972 as a whole, retail prices for foods from U.S. farms may average around 4 percent above 1971.

Retail food prices rose in the first quarter of 1972, following a slight decrease in the fourth quarter of 1971. The retail cost of a market basket of foods produced on U.S. farms rose to an annual rate of \$1,288, up 2.8 percent from the preceding quarter. Most of the increase occurred in February; a slight decrease occurred in March. For the quarter there were substantial price increases for beef, pork, and some fresh vegetables. Increases for most other foods were slight, and prices fell for eggs and fresh fruit. The retail cost of the market basket in the first quarter averaged 5.8 percent higher than a year earlier. This was 19 percent above 1967 and 32 percent above 20 years ago.

Gross returns to farmers (farm value of quantities equivalent to retail units) for market basket foods averaged \$510 (annual rate) in the first quarter, up 5.2 percent from the final quarter of 1971. Higher prices for beef cattle and hogs in January and February accounted for most of the rise. However, cattle and hog prices turned down in March. Lower prices for eggs, fresh fruits and vegetables, and fat and oil products held down the rise in farm value of the market basket in the first quarter. Compared with a year earlier, the farm value of market basket foods was up 9 percent with most of the increase coming from higher prices for beef cattle and hogs. The farm value was up 22 percent from 1967 but up only 7 percent from 20 years ago. Farmers received an average of 40 cents of the dollar consumers spent for farm foods in the first quarter. This was 1 cent more than in the previous quarter and 2 cents above a year earlier. The share dropped to 39 cents in March.

The marketing spread—the difference between the retail cost and farm value of the market basket—averaged \$778 in the first quarter, 1.3 percent more than in the previous quarter. Wider marketing spreads for meats and fresh fruits and vegetables accounted for most of the increase. In contrast, the spread for poultry narrowed sharply. First quarter marketing spreads averaged 3.8 percent above a year earlier, 18 percent above 1967, and 56 percent above 20 years ago.

Widening marketing spreads in the first quarter accounted for two-fifths of the increase in the retail cost of market basket foods over year-ago levels, and one-fourth of the increase from the fourth quarter of 1971.

FARM-FOOD MARKET BASKET STATISTICS

Retail Cost: Consumers paid an average of \$1,288 (annual rate) in the first quarter for a market basket of food produced on U.S. farms, 2.8 percent more than in the previous quarter, which had shown a slight decrease (table 1).¹ Although retail costs for most product groups rose, substantial increases for beef and pork accounted for most of the rise. Retail prices for eggs and fresh fruits decreased slightly. Retail prices for market basket foods declined in March after rising the first 2 months of this year (table 2). February's increase of 1.8 percent was the largest monthly rise since December 1969. Retail prices for farm foods trended upward from October of last year to February of this year, but decreased slightly in March.

The retail cost of market basket foods averaged 5.8 percent higher in the first quarter than a year earlier. Except for eggs which were lower, most other products in the market basket rose. Increases for meats and fresh fruits and vegetables were particularly sharp and together accounted for about four-fifths of the rise. Although more moderate, increases for dairy products, poultry, fat and oil products, and processed fruits and vegetables were also noteworthy.

Over the years, food prices have increased less than prices for most other goods and services purchased by consumers. Consumers paid 19 percent more for market basket foods in the first quarter of 1972 than in 1967 compared with an increase of 24 percent for all other items purchased, as measured by the Consumer Price Index. Compared to 20 years ago, market basket foods were up 32 percent and other items in the CPI, 64 percent.

Farm Value: Returns to farmers for foods in the market basket averaged \$510 (annual rate) in the first quarter, up \$25 or 5.2 percent above the previous quarter (table 1). Increases were particularly sharp for beef cattle, hogs, and poultry. Significant decreases occurred for fresh fruits and vegetables, fat and oil products, and eggs. Higher returns to farmers accounted for almost three-fourths of the rise in retail cost over fourth quarter levels and three-fifths of the rise over 1971's first quarter.

¹The market basket contains the average quantities of domestic, farm-originated food products purchased annually per household in 1960 and 1961 by wage-earners and clerical worker families and single workers living alone. Its retail cost is calculated from retail prices published by the Bureau of Labor Statistics. The retail cost of the market basket foods is less than the cost of all foods bought per household, since it does not include cost of meals in eating places, imported foods, seafoods or other foods not of farm origin. The *farm value* is the gross return to farmers for the farm products equivalent to foods in the market basket. The *farm-retail spread*—difference between the retail cost and farm value—is an estimate of the total gross margin received by marketing firms for assembling, processing, transporting, and distributing the products in the market basket.

The farm value of the market basket averaged 9 percent higher in the first quarter of 1972 than the relatively low level of a year ago. Higher prices for hogs, and beef cattle, accounted for most of the rise. Moderate price increases for many other farm products were about offset by sharply lower prices for eggs. Prices for meat animals and fresh vegetables dropped sharply in March.

Farm value for market basket foods in the first quarter averaged 22 percent above 1967 but only 7 percent above the level of 20 years ago.

Farm-Retail Spread: Since the 90-day price freeze ended in November, farm-retail spreads for market basket foods widened every month through March, except in January. In March, farm-retail spreads averaged 3.7 percent more than in November 1971.

Widening marketing margins accounted for about one-fourth of the rise in the retail cost of a market basket of U.S. farm foods from the final quarter of 1971 to the first quarter of 1972. The spread between the retail cost and farm value of market basket foods averaged \$778 (annual rate), up \$10, or 1.3 percent more than in the final quarter of 1971. Spreads widened for all product groups except dairy products, poultry, bakery and cereal products and processed fruits and vegetables. Marketing spreads widened significantly, however, for Choice beef and some fresh vegetables. First quarter marketing spreads about regained the amount they dropped from the third to the fourth quarters last year. However, marketing spreads for February and March were higher than any previous month.

The farm-retail spread of the market basket in the first quarter of this year was 3.8 percent higher than in the first quarter of last year. The increase was distributed among spreads for all product groups except eggs which decreased slightly. Above-average increases were recorded for fresh fruits and vegetables, and fat and oil products.

Marketing spreads have increased 18 percent since 1967 compared with about 56 percent in the last 20 years.

Farmer's Share: Farmers received an average of 40 cents of the dollar consumers spent for domestic farm foods in retail food stores in the first quarter. This was 1 cent more than in the previous quarter and 2 cents more than a year earlier. Because of declining farm prices, the farmer's share in March dropped to 39 cents.

In the past decade, the farmer's quarterly shares have ranged from 36 to 42 cents. The share has averaged below 40 cents for about two-thirds of the quarters. It exceeded 40 cents in only 6 quarters. Twenty years ago the farmer's share averaged 49 cents of the consumer's food dollar.

Outlook: Retail prices of foods from U.S. farms are expected to stabilize in coming months but may edge upward slightly from first quarter levels in the latter half of the year. Returns to farmers for these foods are

Table 1.--The market basket of farm foods by product group: Retail cost, farm value and farm-retail spread, first quarter, 1972 with comparisons ^{1/}

Item	I	Change from:			
	1972	Previous quarter		Year ago	
	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
		Retail cost			
Market basket	1,287.52	35.04	2.8	70.36	5.8
Meat	411.51	28.84	7.5	45.79	12.5
Dairy	227.10	1.63	.7	4.98	2.2
Poultry	50.35	.94	1.9	1.63	3.3
Eggs	37.06	-.46	-1.2	-3.65	-9.0
Bakery and cereal ...	191.19	.27	.1	.81	.4
Fresh fruits	53.04	-.30	-.6	3.13	6.3
Fresh vegetables	87.30	3.13	3.7	9.99	12.9
Processed fruits and vegetables	126.73	.61	.5	4.55	3.7
Fats and oils	45.41	.09	.2	1.98	4.6
Miscellaneous	57.83	.29	.5	1.15	2.0
		Farm value			
Market basket	509.68	25.39	5.2	42.22	9.0
Meat	238.67	23.80	11.1	40.94	20.7
Dairy	107.85	2.10	2.0	1.82	1.7
Poultry	24.39	2.75	12.7	.68	2.9
Eggs	20.41	-.81	-3.8	-3.33	-14.0
Bakery and cereal ...	29.89	.41	1.4	-.37	-1.2
Fresh fruits	15.22	-1.46	-8.8	.59	4.0
Fresh vegetables	27.26	-1.51	-5.2	.79	3.0
Processed fruits and vegetables	23.45	.69	3.0	.98	4.4
Fats and oils	13.42	-.68	-4.8	-.05	-.4
Miscellaneous	9.12	.10	1.1	.17	1.9
		Farm-retail spread			
Market basket	777.84	9.65	1.3	28.14	3.8
Meat	172.84	5.04	3.0	4.85	2.9
Dairy	119.25	-.47	-.4	3.16	2.7
Poultry	25.96	-1.81	-6.5	.95	3.8
Eggs	16.65	.35	2.1	-.32	-1.9
Bakery and cereal ...	161.30	-.14	-.9	1.18	.7
Fresh fruits	37.82	1.16	3.2	2.54	7.2
Fresh vegetables	60.04	4.64	8.4	9.20	18.1
Processed fruits and vegetables	103.28	-.08	-.8	3.57	3.6
Fats and oils	31.99	.77	2.5	2.03	6.8
Miscellaneous	48.71	.19	.4	.98	2.1

^{1/} The market basket contains the average quantities of farm-originated foods purchased annually per household in 1960-61. Retail cost is calculated from U.S. average retail prices collected by the Bureau of Labor Statistics. Farm value is payment to farmer for equivalent quantities of farm products minus imputed value of byproducts obtained in processing. Quarterly data are annual rates. Additional data are shown in tables at the back of this report.

Table 2.--The market basket of farm food: Retail cost, farm value, farm-retail spread, and farmer's share of the retail cost ^{1/}

Year and quarter	Retail cost	Farm value	Farm-retail spread	Farmer's share	Month	Retail cost	Farm value	Farm-retail spread	Farmer's share
	Dollars	Dollars	Dollars	Percent		Dollars	Dollars	Dollars	Percent
Average:					1970				
1947-49 ...	895	448	447	50	January ...	1,226	501	725	41
1957-59 ...	989	397	592	40	February ..	1,229	507	722	41
					March	1,224	499	725	41
1961	999	386	613	39	April	1,223	481	742	39
1962	1,009	395	614	39	May	1,227	479	748	39
1963	1,007	378	629	38	June	1,228	481	747	39
1964	1,009	377	632	37	July	1,240	495	745	40
1965	1,037	416	621	40	August	1,236	470	766	38
1966	1,092	445	647	41	September :	1,226	473	753	39
1967	1,081	419	662	39	October ...	1,215	452	763	37
1968	1,119	441	678	39	November ..	1,201	438	763	36
1969	1,176	480	696	41	December ..	1,206	437	769	36
1970	1,223	476	747	39					
1971 ^{2/}	1,244	477	767	38	1971				
					January ...	1,207	453	754	38
1969					February ..	1,218	475	743	39
I	1,138	458	680	40	March	1,226	475	751	39
II	1,166	486	680	42	April	1,237	472	765	38
III	1,200	489	711	41	May	1,241	474	767	38
IV	1,200	488	712	41	June	1,254	477	777	38
					July	1,265	486	779	38
1970					August	1,265	487	778	38
I	1,226	502	724	41	September :	1,250	473	777	38
II	1,226	480	746	39	October ...	1,244	477	767	38
III	1,234	479	755	39	November ..	1,247	485	762	39
IV	1,207	442	765	37	December ..	1,266	492	774	39
1971					1972 ^{2/}				
I	1,217	467	750	38	January ...	1,274	511	763	40
II	1,244	474	770	38	February ..	1,297	515	782	40
III	1,260	482	778	38	March	1,292	502	790	39
IV	1,252	484	768	39	April				
					May				
1972					June				
I	1,288	510	778	40	July				
II					August				
III					September :				
IV					October ...				
					November ..				
					December ..				

^{1/} The market basket contains the average quantities of domestic, farm-originated food products purchased annually per household in 1960 and 1961 by wage-earners and clerical worker families and workers living alone. Its retail cost is calculated from retail prices published by the Bureau of Labor Statistics. The farm value is the gross return to farmers for the farm products equivalent to foods in the market basket. The farm-retail spread--difference between the retail cost and farm value--is an estimate of the total gross margin received by marketing firms for assembling, processing, transporting, and distributing the products in the market basket. Quarterly and monthly data are annual rates. Additional historical data are published in Farm-Retail Spreads for Food Products, Misc. Pub. 741, January 1972. ^{2/} Preliminary.

expected to average slightly below first quarter levels through summer months and weaken as more meat animals become available in the fall. Rising costs of labor and other inputs purchased by marketing firms will continue to pressure marketing margins in coming months.

Prices to farmers for market basket foods may already have peaked in the first quarter. Any further rise in retail prices during the remainder of the year probably will result from widening marketing margins. If prices received by farmers are as indicated and if the increase in marketing margins is about the same as the 2.7 percent in 1971, the retail cost of the market basket of U.S. farm foods in 1972 would average around 4 percent higher than a year earlier.

Commodity Highlights

Beef: Continued strong consumer demand and slightly smaller per capita supplies of beef contributed to higher beef prices at all market levels in the first quarter of 1972. Retail prices for Choice beef averaged 114.4 cents per pound, up 7.8 cents from the previous quarter (table 3). The farm value of Choice beef increased 3.8 cents to 73.7 cents. As a result, the farm-retail spread widened by 4.0 cents to 40.7 cents. Practically all of the increase was in the carcass-retail segment of the marketing spread. The carcass-retail spread (mainly the wholesaler-retailer margin) widened by 3.8 cents from the fourth quarter of 1971 to 33 cents in the first quarter of 1972. It increased each month in the quarter and averaged 36.8 cents in March.

Retail prices for Choice beef averaged 14.2 cents per pound higher in the first quarter of 1972 than a year earlier. The farm value was up 8.8 cents and the farm-retail spread increased 5.4 cents. All of the increase in spread was in the carcass-retail margin. The farm-carcass component decreased slightly.

Generally, farm-retail spreads for beef contract during periods of rising cattle prices because price changes at retail lag those at the farm or wholesale levels. Conversely, they usually widen when farm prices fall. Behavior in the first quarter of 1972 was different. Farm-retail spreads for beef did not contract as expected when farm and wholesale prices rose. Instead, they also rose by about the same amount as the farm value. Thus, the sharp rise in retail beef prices in the first quarter apparently reflected not only higher farm prices but also a change in retail pricing policies.

The composite retail price for Choice beef averaged 115.8 cents in March, the same as in February. The 3.1 cent drop in farm value widened the farm-retail spread by the same amount.

Pork: Production of pork in the first quarter of 1972 was below last fall's level and well below the relatively high levels reached in the first half of 1971. As a result, returns to farmers for hogs strengthened considerably in the first quarter of this year. The farm value of the quantity of live hog equivalent to a pound of pork sold

at retail averaged 44.0 cents in the first quarter—up 8.8 cents from the previous quarter. The composite retail price of pork cuts averaged 79.0 cents per pound in the first quarter—up 7.1 cents from the final quarter of 1971. The farm-retail spread for pork dropped by 1.7 cents because the rise in retail prices lagged the rise at the farm level. The decrease in the spread occurred in the farm-wholesale spread, mainly the packer's margin. The wholesale-retail spread, mainly the retailer's margin, increased slightly.

Compared to the relatively low level of a year ago, the farm value of pork averaged 13.4 cents higher in the first quarter of 1972. The retail price was up 9.8 cents and the farm-retail spread decreased 3.6 cents. Both the farm-wholesale and the wholesale-retail components of the spread were lower than the relatively high level of a year ago.

The retail price of pork declined slightly from February to March, partially reflecting a drop in the farm value while the farm-retail spread widened. The retail price of pork averaged 79.4 cents per pound in March—down 1.9 cents from February. The farm value dropped 4.4 cents but the marketing spread increased 2.5 cents.

Eggs: As production of eggs continued above year-earlier levels, prices at both farm and retail levels declined sharply. The retail price for Grade A large eggs averaged 51.4 cents per dozen in the first quarter of this year, down slightly from the previous quarter and down 5.1 cents from a year earlier. Decreases at the farm level were less than at retail. As a result the farm-retail spread also decreased slightly in the first quarter from a year earlier.

Fresh Vegetables: Widening marketing spreads contributed greatly to higher retail prices than a year earlier for fresh vegetables in the first quarter of 1972. The marketing spread increased 18 percent from the relatively low level of the first quarter of 1971. The retail cost of fresh vegetables in the first quarter averaged about 13 percent above a year earlier although returns to farmers increased only 3 percent (table 1).

Marketing spreads for tomatoes and lettuce widened about a third (table 4). Spreads for most other salad vegetables also rose significantly. Increases for onions and potatoes were more moderate—5 and 7 percent respectively.

Farm-retail spreads for fresh vegetables have averaged substantially higher so far in the 1970's than in the late 1960's. The spread for the first quarter of 1972, although significantly higher than a year earlier, was only 3 percent higher than in several recent quarters. Rapidly changing supply conditions for individual fresh vegetables often cause volatile adjustments in prices and spreads.

Bread: Prices and price spreads for white pan bread are shown in table 5 for 1970, 1971, and first quarter 1972. The U.S. average retail price for a 1-pound loaf was 24.5 cents in the first quarter of 1972, unchanged

Table 3.--Beef, pork, and lamb: Retail price, carcass value, farm value, farm-retail spread, and farmer's share of retail price, annual 1969-71, quarterly 1971-72

[illegible]

1/ Estimated weighted average price of retail cuts. 2/ For quantity equivalent to 1 lb. of retail cuts: Beef: 1.41 lb. of carcass beef; pork, 1.07 lb. of wholesale cuts; lamb, 1.18 lb. of carcass lamb. 3/ Payment to farmer for quantity of live animal equivalent to 1 lb. of retail cuts: Beef, 2.28 lb.; pork, 1.97 lb.; lamb, quantity varies by months from 2.42 lb. in May to 2.48 lb. in October. 4/ Portion of gross farm value attributed to edible and inedible byproducts. 5/ Gross farm value minus byproduct allowance.

Table 4.--Changes in retail price, farm value, and farm-retail spread for selected market basket foods, first quarter 1972 with comparisons

Item	Change from:			I 1972	Change from:			I 1972
	Previous quarter	Year ago			Previous quarter	Year ago		
	Cents	Percent	Percent		Cents	Percent	Percent	
Butter, pound				Cheese, American, $\frac{1}{2}$ pound				
Retail price	87.5	0	-.2	53.6	.8	3.1		
Farm value	59.2	2.1	-4.5	23.8	3.9	5.8		
Farm-retail spread	28.3	-4.1	10.1	29.8	-1.7	1.0		
Milk, sold in stores, $\frac{1}{2}$ gallon				Chicken, frying, pound				
Retail price	59.8	1.0	2.6	41.4	2.2	3.5		
Farm value	30.0	1.0	1.7	19.9	14.4	2.6		
Farm-retail spread	29.8	1.0	3.5	21.5	-6.9	4.4		
Eggs, large grade A, dozen				Corn flakes, 12 ounces				
Retail price	51.4	-1.2	-9.0	31.7	-1.6	-7.0		
Farm value	28.3	-3.7	-14.0	1.9	5.6	-24.0		
Farm-retail spread	23.1	2.2	2.1	29.8	-2.0	-5.7		
Apples, pound				Oranges, dozen				
Retail price	22.2	8.3	37.4	91.9	-7.9	-7.4		
Farm value	7.0	-4.1	9.4	20.0	-15.3	-5.2		
Farm-retail spread	15.2	15.2	1.3	71.9	-5.6	11.5		
Lettuce, head				Tomatoes, pound				
Retail price	35.8	-11.6	17.8	46.7	0	2.9		
Farm value	13.5	-20.1	.7	14.0	-31.7	34.0		
Farm-retail spread	22.3	-5.5	31.2	32.7	24.8	35.1		
Orange juice, frozen, 6 oz. can				Margarine, pound				
Retail price	25.0	.4	15.7	33.2	0	3.8		
Farm value	9.4	17.5	44.6	9.9	-5.7	0		
Farm-retail spread	15.6	-7.7	3.3	23.3	2.6	5.4		
Potatoes, 10 pounds				Peas, frozen, 10 ounces				
Retail price	83.6	2.6	3.2	22.2	0	1.8		
Farm value	19.1	2.7	-6.8	3.8	0	2.7		
Farm-retail spread	64.5	2.5	6.6	18.4	0	1.7		

i/ Data for additional foods are shown in tables at back of this report.

Table 5.--White pan bread: Estimated retail and wholesale price of a 1-pound loaf; retailer's, baker-wholesaler's, miller's, and other spreads; farm value of ingredients; flour and wheat prices and related data, quarterly 1970-72

Item	Unit	1970				1971				1972					
		I	II	III	IV	Year	I	II	III	IV	Year	Jan.	Feb.	March	I
Retail price <u>1</u> /.....	Cents per loaf	23.8	24.0	24.5	24.7	24.2	24.8	24.8	25.0	24.5	24.8	24.3	24.6	24.7	24.5
Retail spread <u>2</u> /.....	do.	5.6	5.7	5.7	5.5	5.6	5.4	5.5	5.6	5.1	5.4	4.4	4.7	4.8	4.6
Wholesale price <u>3</u> /.....	do.	18.2	18.3	18.8	19.2	18.6	19.4	19.3	19.4	19.4	19.4	19.9	19.9	19.9	19.9
Baker-wholesaler spread <u>4</u> /.....	do.	12.5	12.5	12.9	13.3	12.8	13.6	13.5	13.6	13.6	13.6	14.0	14.0	14.0	14.0
Cost to baker:															
All ingredients <u>5</u> /.....	do.	5.7	5.8	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.9	5.9	5.9	5.9
Flour <u>6</u> /.....	do.	3.9	3.9	4.0	4.0	3.9	3.9	3.9	3.8	3.8	3.9	3.8	3.8	3.8	3.8
Mill sales value															
of flour <u>6</u> /.....	do.	3.6	3.6	3.7	3.7	3.6	3.7	3.6	3.5	3.5	3.6	3.5	3.5	3.5	3.5
Miller's flour spread <u>7</u> /...	do.	.6	.5	.6	.5	.5	.6	.6	.6	.6	.6	.5	.6	.6	.6
Cost of wheat to miller <u>8</u> /.....	do.	3.0	3.1	3.1	3.2	3.1	3.1	3.0	2.9	2.9	3.0	3.0	2.9	2.9	2.9
Other spreads <u>9</u> /.....	do.	1.7	1.9	1.9	1.9	1.9	1.7	1.6	1.7	1.7	1.7	1.9	1.7	1.8	1.8
Farm value:															
All ingredients <u>10</u> /.....	do.	3.4	3.4	3.4	3.5	3.4	3.5	3.6	3.5	3.5	3.5	3.5	3.6	3.5	3.5
Wheat <u>11</u> /.....	do.	2.6	2.6	2.6	2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Flour prices: <u>12</u> /															
F.o.b. mill.....	Dol. per cwt.	5.73	5.73	5.78	5.84	5.77	5.77	5.72	5.58	5.55	5.65	5.53	5.52	5.53	5.53
Delivered to bakers.....	do.	6.17	6.17	6.25	6.31	6.22	6.24	6.17	6.05	6.01	6.12	6.05	6.04	6.01	6.03
Flour sales: <u>12</u> /															
Sold in bags.....	Percent	25	29	24	15	23	20	21	19	16	19	16	16	17	16
Price differential for bags.....	Cents per cwt.	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Wheat prices:															
Farm delivery point <u>13</u> /...	Dol. per bu.	1.27	1.27	1.30	1.40	1.31	1.36	1.38	1.26	1.30	1.33	1.31	1.32	1.32	1.32
Delivered to miller <u>14</u> /...	do.	2.44	2.48	2.46	2.57	2.49	2.47	2.44	2.31	2.36	2.40	2.35	2.32	2.31	2.33

1/ Based on prices reported by Bureau of Labor Statistics. 2/ Spread between retail and wholesale prices. 3/ Estimated from BLS prices and trade data. 4/ Spread between wholesale price and cost to baker of all ingredients. 5/ Cost of flour plus shortening, nonfat dry milk, sugar and other minor nonfarm produced ingredients. 6/ Cost or sales value of flour (0.6329 lb.) used per pound of bread. 7/ Spread between mill sales value of flour and cost of wheat to miller. The data sources used to compute this spread have been improved by using prices of bread-type flour shown below. Thus, figures for the miller's spread are not comparable with previously published data. 8/ Cost of wheat (.01445 bu.) including marketing certificate, net of imputed cost chargeable to millfeed byproducts. 9/ Charges for transporting, handling, storing all ingredients, for processing ingredients other than flour and cost of nonfarm produced ingredients such as yeast, salt, and malt extract. This spread is a residual figure. 10/ Returns to farmers for wheat including an allowance for the marketing certificate, shortening, nonfat dry milk, and sugar used in a 1-pound loaf. 11/ Returns to farmers for wheat, including the certificate, less imputed value of millfeed byproducts. 12/ Based on monthly sales and prices of bread-type flour reported by a sample of flour milling firms. 13/ Weighted average for hard winter and spring wheat in the 10 major wheat producing States. 14/ Includes allowance for marketing certificate.

from the last quarter of 1971 and 0.3 cent less than a year earlier.

The farm value of all ingredients was 3.6 cents per loaf in the first quarter of 1972. Farm value has changed little in the past 2 years and presently exceeds the annual average of about 3.2 cents during the 1960's.

The cost of marketing a loaf of bread can be separated into 4 charges or payments. These charges make up over 85 percent of the retail price of bread. Baking and wholesaling charges amounted to 14.0 cents in the first quarter this year. Retailing charges amounted to 4.6 cents. The miller's spread added 0.6 cent. The remaining 1.8 cents of retail price represented the value added for (1) transporting, handling, and storing ingredients, (2) processing ingredients other than flour,

and (3) nonfarm produced ingredients. Increases in the baker-wholesaler spread have accounted for most of the 0.7-cent increase in retail bread prices since the first quarter of 1970.

Estimates of the flour miller's spread shown in table 5 differ from previously published estimates due to a change in flour prices used. A continuing monthly survey is being conducted among a sample of flour millers to obtain prices and related data for bread-type flour which is used in computing the miller's spread. The survey price data are an improvement over previously used data because they more accurately represent prices among geographic areas, are more timely, and are specifically for bread flour. The survey data are summarized in the lower portion of the table.

PROFITS OF FIRMS MARKETING AGRICULTURAL PRODUCTS

by

Terry L. Crawford, Marketing Economics Division

ABSTRACT: *Price stabilization policies of the Price Commission state that gross profit margins of firms may not exceed the average of the highest 2 out of 3 past fiscal years. Estimates of increases in profit margins of industries marketing agricultural products were made by comparing reported profits of the past 3 years with the Price Commission rules for individual firms. Profit margins of these industries for fiscal year 1972 may be equal to or slightly higher than the 1971 level. Profits for food manufacturing firms rose in 1971. Leading food retailers showed a slight decrease in profit rates in 1971.*

Key Words: *Profits, food retailers, manufacturers, price stabilization.*

The current economic stabilization policy to control inflation focuses attention on profit margins of firms. Profit margins are a controlling variable for price stabilization. The Price Commission rules state that gross profit margins of firms may not exceed the average of their highest 2 out of the past 3 fiscal years. Total dollar profits may increase as a result of increases in sales.

Complete profit data for analysis of the first quarter of 1972 are not yet available. A look at industry profit trends provides some basis for applying the profit margin rules of Phase II controls.

Profits as a percentage of sales for manufacturing corporations generally were up from a year earlier for the third and fourth quarters of 1971. For the year, after-tax profits for all manufacturing firms as a percentage of sales averaged 4.1 percent, compared with 4.0 percent in 1970 (table 6). Profits as a share of stockholders' equity rose by half a percentage point to 9.7 percent, reversing a 3-year decline.

Profit margins of firms manufacturing food and fiber products also rose with the upswing in the economy. Profits of textile mill and apparel product manufacturers both made strong recoveries in 1971. Profit ratios of textile mill product manufacturers in 1971, however, remained below levels of the 1964-69 period.

Food Processors

Food processor returns on equity and profit margins on sales were slightly higher in 1971 than 1970, although profit margins in the third and fourth quarters were unchanged from the same quarters in 1970. Dairy manufacturers, bakeries, and meat packers increased earnings more than the average increase for all food manufacturers in 1971. Dairy manufacturer profit margins on sales increased from 2.1 percent in 1970 to 2.3 percent in 1971. Returns on stockholders' equity increased from 10.2 to 11.1 percent. Most of this increase occurred in the third quarter of 1971. Dairy company profits declined seasonally in the fourth quarter of 1971.

Bakery manufacturing profits were higher in 1971 than the previous 2 years. Profits for 1969 and 1970

averaged 1.9 percent of sales, but rose to 2.3 percent in 1971.

Partial data for meat packers show a substantial increase in profit ratios in 1971. Profit margins for 11 firms for which fiscal year data are available averaged 1.3 percent of sales in 1971 compared with 1.0 percent in 1970 for these same firms. Profit margins of meat packers average considerably less than other manufacturers. In the last quarter of the year, rising cattle and hog prices decreased packers' profit margins as a percentage of sales. Price increases for cattle and hogs into the first quarter of 1972 likely held down profit margins for meat packers.

Food Retailers

Profits of food retailers declined in 1971, mainly in the last half of the year. Profits of 15 leading chains averaged 0.9 percent of sales in 1971, down from 1.1 percent in 1970 (table 6). Profit margins in the fourth quarter declined to 0.7 percent of sales. Profits for the 15 chains averaged the same in the first half of 1971 as in the first half of 1970.

Profit margins are affected by Phase II guidelines. Retailers are restricted from increasing their percentage markups from what they were during the base period except exempt raw agricultural products. Although percentage markups cannot be increased, total dollar margins may increase as merchandise costs increase. Unlike the controls for manufacturers, retailers cannot pass along increases in store operating costs, such as labor. Therefore, retail profit margins may be squeezed. On the other hand, if total dollar margins increase faster than store operating costs, profit per dollar of sales may increase but not exceed the Price Commission's profit margin guidelines.

To supplement the regularly published data for 15 leading chains, a series for the top 70 chains has been developed. These firms accounted for more than half of all U.S. grocery store sales in 1970. Trends in profit margins of these 70 food retailers parallel those for the 15 leading chains. The level of profits differs slightly by size of firm.

Table 6.--Profit ratios (after Federal income taxes) of all manufacturing, manufacturers of food, textiles, apparel and 15 retail food chains, annual 1960-71, quarterly 1970-71 1/

Year and quarter	Food				Textile- mill products	Apparel and other finished products	All manufactured products	15 retail food chains
	Total	Dairy	Bakery	Meat Packers				
	2/ :	:	:	3/ :				
Profits as percentage of stockholder's equity								
1960	9.2	---	---	---	5.8	7.7	9.3	13.0
1961	9.4	---	---	---	5.0	7.3	8.9	12.0
1962	9.2	---	9.2	---	6.2	9.3	9.8	11.7
1963	9.3	8.6	9.4	---	6.1	7.7	10.3	11.4
1964	10.4	9.5	9.1	---	8.6	11.9	11.7	11.5
1965	11.0	10.7	9.2	---	10.9	12.8	13.1	11.3
1966	11.5	11.4	10.9	7.1	10.3	13.8	13.6	11.4
1967	11.1	10.3	12.2	11.5	7.6	12.2	11.8	10.3
1968	10.9	9.8	11.9	10.2	8.8	13.0	12.2	10.3
1969	11.0	10.1	8.6	8.8	7.9	11.9	11.5	10.4
1970	10.9	10.2	8.8	8.7	5.1	9.3	9.3	10.6
1971	11.1	11.1	10.7	12.0 4/	6.7	11.2	9.7	---
1970								
January-March	10.2	9.0	8.6	---	5.4	8.3	9.2	---
April-June	10.4	11.0	9.3	---	4.8	7.2	10.4	---
July-September	11.8	11.2	6.7	---	5.4	14.4	9.0	---
October-December	11.0	9.6	10.4	---	4.8	7.3	8.7	---
1971								
January-March	10.5	9.8	9.8	---	4.6	5.5	8.9	---
April-June	11.7	11.5	12.2	---	7.2	10.9	10.7	---
July-September	11.6	12.3	9.4	---	6.5	12.5	9.3	---
October-December	10.4	10.6	11.3	---	8.2	15.1	9.8	---
Profits as a percentage of sales								
1960	2.2	---	---	---	2.5	1.4	4.4	1.3
1961	2.2	---	---	---	2.1	1.3	4.3	1.2
1962	2.2	---	2.3	---	2.4	1.6	4.5	1.2
1963	2.2	1.9	2.2	---	2.3	1.4	4.7	1.2
1964	2.5	2.3	2.2	---	3.1	2.1	5.2	1.3
1965	2.6	2.5	2.1	---	3.8	2.3	5.6	1.2
1966	2.5	2.5	2.3	.9	3.6	2.4	5.6	1.2
1967	2.4	2.4	2.6	1.4	2.9	2.3	5.0	1.1
1968	2.4	2.3	2.6	1.2	3.1	2.4	5.1	1.1
1969	2.4	2.2	1.9	1.2	2.9	2.3	4.8	1.1
1970	2.3	2.1	1.9	.9	1.9	1.9	4.0	1.1
1971	2.4	2.3	2.3	1.3 4/	2.4	2.4	4.1	.9
1970								
January-March	2.2	1.9	1.9	---	2.1	1.7	4.0	1.1
April-June	2.2	2.3	2.0	---	1.8	1.5	4.4	1.0
July-September	2.5	2.3	1.4	---	2.0	2.9	3.9	1.1
October-December	2.3	2.0	2.3	---	1.7	1.5	3.7	1.2
1971								
January-March	2.3	2.1	2.1	1.4	1.7	1.3	3.9	.9
April-June	2.5	2.3	2.6	1.3	2.6	2.4	4.5	1.2
July-September	2.5	2.6	2.0	1.3	2.4	2.6	4.1	.9
October-December	2.3	2.1	2.4	.9	2.9	3.0	4.1	.7

1/ Compiled from Quarterly Financial Report for Manufacturing Corporations published by the Federal Trade Commission and Securities and Exchange Commission. 2/ Food and kindred products excluding alcoholic beverages. 3/ Compiled from Moody's Industrial Manual. 4/ Based on financial data for 11 out of 21 firms representing 58 percent of total sales of firms in the sample.

Profits of smaller chains, which as a group showed a loss in 1969, averaged 2.1 percent of sales in 1970. Most of this increase reflected a tax credit for the loss in 1969. The smaller chains account for 5 percent of

Food chains' returns on net worth are less than those of food manufacturers. All food chains averaged 10.3 percent of return on equity for 1966-70 compared with 11.1 percent for manufacturers.

Although profits as a percentage of sales are limited to the average of highest 2 out of past 3 fiscal years ended prior to August 15, 1971, a firm does not have a profit constraint if it does not increase prices from the base period. Possible allowable increases in profit margins can be partially estimated by comparing

Table 7.--Profit ratios of 70 food retailers, by sales size, 1966 to 1970 1/

Firms	:	1966	:	1967	:	1968	:	1969	:	1970	:	5-year average
	:											
	:	<u>Percentage of sales</u>										
	:											
Profit before taxes	:											
Large (15)	:	2.09		1.75		1.82		2.05		2.07		1.97
Medium-sized (20)	:	2.14		2.43		2.38		1.93		1.87		2.13
Small (35)	:	3.07		2.73		2.97		<u>2/</u>		2.20		2.02
Total	:	2.14		1.97		2.04		1.84		2.04		2.00
	:											
Profits after taxes	:											
Large	:	1.19		1.11		1.05		1.04		1.03		1.08
Medium-sized	:	1.18		1.07		1.22		.82		.84		1.00
Small	:	1.62		1.46		1.56		<u>2/</u>		2.09		1.35
Total	:	1.22		1.13		1.13		.90		.97		1.06
	:											
	:	<u>Percentage of stockholder equity</u>										
	:											
Profit before taxes	:											
Large	:	19.89		16.33		17.46		19.61		21.30		19.00
Medium-sized	:	21.41		26.76		25.51		19.19		19.85		22.20
Small	:	27.26		24.43		25.37		<u>2/</u>		22.88		18.25
Total	:	20.59		18.88		19.78		17.52		21.13		19.54
	:											
Profits after taxes	:											
Large	:	11.38		10.40		10.14		9.94		10.60		10.46
Medium-sized	:	11.87		11.84		13.15		8.20		8.93		10.49
Small	:	14.38		13.07		13.34		<u>2/</u>		8.83		8.93
Total	:	11.64		10.89		11.03		8.58		10.09		10.33

2/ Loss

industry profit margins with the rules for individual firms.¹ This analysis cannot be used to determine compliance with Price Commission rules since they apply to individual firms. These estimates may be somewhat low as individual firms will select their highest years which may be different from the industries' highest years.

All manufacturing would, under these calculations, be allowed a 4.5 percent profit on sales after taxes, compared with the 1971 rate of 4.1 percent. All food manufacturers' allowable rate would be 2.4 percent, the

same as 1971. Dairy manufacturers' after-tax profit rate would be 2.1 percent, a little lower than the 2.3 percent for 1971. Bakery at 2.4 percent of sales would be slightly higher than the 1971 level. Since complete 1971 data for meat packers are not available, the highest 2 years of the past 3 cannot be computed. Textile mill profit rate could increase slightly to 2.6 percent. Apparel and other finished products' profit rate would be the same as the 1971 rate.

Profit margins of food chains of all sizes have been relatively stable the past 3 years. However, quarterly data for 1971 indicate that profit margins for the year probably averaged slightly less than the past 2 years. Therefore, a slight increase in profit margins over 1971 may be possible and still be within the Price Commission guidelines.

¹The Price Commission profit margin rule relates only to before-tax profits; for analytical purposes, before-tax profit rate is about twice the after-tax rate.

TRENDS IN PRICE SPREADS FOR BEEF AND PORK

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ABSTRACT: Retail prices of beef and pork have increased about 30 percent since 1962; net farm values have increased less and have fluctuated more. Spreads between farm values and retail prices have increased more than one-third since 1962, but year-to-year increases have varied widely. Increases in beef and pork price spreads have accompanied similar increases in costs of labor and other marketing services. Seasonal and annual movements in price spreads reflect price adjustments to changing supplies and marketings of beef and pork, changes in consumer demand and incomes, and lags in the timing of price adjustments between various market levels.

KEY WORDS: Beef, pork, price-spreads, marketing costs.

Retail prices for beef increased steadily in 1971, from 100.2 cents per pound in the first quarter to 106.6 cents in the fourth quarter, then increased sharply to 114.4 cents in the first quarter of 1972. For pork, quarterly retail prices in 1971 averaged less than the previous year, ranging between 68.8 cents and 71.9 cents per pounds during the year. Then they increased to 79.0 cents in the first quarter of 1972. For both beef and pork, the average retail price has increased about one-third since 1962. Most of the increase has accompanied higher per capita consumption, particularly for beef, rising disposable incomes, and increasing costs for firms processing dressed meat and retailing foods (table 8).

This article examines trends and year-to-year changes since 1962 in selected costs of marketing and processing meats in relation to changing price spreads. It shows changes in the levels and seasonal patterns of farm-wholesale and wholesale-retail components of the

price spreads for beef and pork. And it discusses problems in interpreting farm-wholesale and wholesale-retail spreads as they relate to individual stores, packers, processors and retailers.

Farm-retail price spreads for beef and pork represent the difference between the average retail price per pound and the farm value of the quantity of live animal equivalent to 1-pound of retail cuts. They measure gross marketing charges incurred between livestock producers and the retail meat counter. Spreads change when livestock prices and retail meat prices change by different amounts. Price spread changes are usually largest when livestock prices are falling or retail meat prices are rising.

Farm Value Per Retail Pound

Net farm values per retail pound of beef and pork have fluctuated in the past 10 years and have been more

Table 8.--Beef and pork retail prices and consumption, and personal disposable income, 1962-71

Year	Retail price		U.S. civilian consumption per capita (carcass weight)		Per capita personal disposable income
	Beef	Pork	Beef	Pork	
	Cents per pound		Pounds		Dollars
1962 ...	81.7	58.8	88.9	63.5	2,066
1963 ...	78.5	56.6	94.5	65.4	2,139
1964 ...	76.5	55.9	99.9	65.4	2,284
1965 ...	80.1	65.8	99.5	58.7	2,436
1966 ...	82.4	74.0	104.2	58.1	2,605
1967 ...	82.6	67.2	106.5	64.1	2,751
1968 ...	86.6	67.4	109.7	66.2	2,946
1969 ...	96.2	74.3	110.8	65.0	3,130
1970 ...	98.6	78.0	113.7	66.4	3,358
1971 ...	104.3	70.3	113.3	72.8	3,581

variable than retail prices (table 9). Changes in net farm values reflect trends in demand, year-to-year changes in supply, and trends in marketing costs. Annual and seasonal changes in supplies and prices of cattle differ from those for hogs. Since 1962 beef production has followed a steady upward trend, but net farm value per retail pound decreased from 55.2 cents in 1962 to 46.2 cents in 1964, then increased to 62.2 cents in 1969, and to 67.9 cents in 1971. Net farm value of beef increased each quarter during 1971 and in first quarter 1972 reached 73.7 cents per retail pound.

Since 1962, hog production and pork farm value have fluctuated widely, following a recurring 4 year up-and-down cycle. Net farm value for pork ranged between 26.8 cents in 1964 and 42.3 cents in 1969. During 1971, net farm value for pork averaged about 30 cents per pound in the first 2 quarters, increased to about 34-35 cents per pound in the last half of the year, and remained at 35 cents in the first quarter of 1972. Hog marketings vary seasonally within a year more than beef, causing wider seasonal fluctuations in pork net farm values.

Changes in farm values for livestock tend to reflect shortrun changes in supply and demand conditions, and usually lead changes at retail by several weeks. Retail beef and pork prices usually show less month-to-month variability than cattle and hog prices. While retailers special more meat cuts in some weeks of a month than others, especially when supplies are large, they attempt to follow relatively steady monthly pricing patterns, which result in shortrun changes in their margins.

Trends in Price Spreads and Marketing Costs

Farm-retail price spreads have increased 40 percent for beef and 34 percent for pork since 1962. Spreads have tended to reach plateaus with little or no change for several years, followed by shifts upward to another level several cents per pound higher.

This pattern is especially evident in the farm-retail price spread for pork. It ranged around 28 to 29 cents per retail pound from 1962 to 1965, fluctuated around 32 cents per pound during 1966-69, and then increased to around 38 cents per pound in 1970 and 1971 (table 10). For beef, the annual average was 26½ cents per pound in 1962, 28 to 30 cents during 1963-68, but then rose to 34 cents in 1969 and 36 cents in 1971.

Increases in price spreads for beef and pork have accompanied rising marketing costs since 1962. While the farm-retail spread for beef and pork increased about a third between 1962 and 1971, hourly earnings for meat packing and meat processing employees rose nearly 50 percent. Similarly, hourly earnings of food retailing employees rose 58 percent. Cost indexes of supplies and services bought by marketing firms were also up. Containers and packaging materials rose 18 percent; fuel, power and light rose 21 percent and rent, telephone, banking and other services rose 52 percent. Shipping and delivery costs have increased recently but not as markedly. Rail freight rates for dressed meats declined from 1962 to 1967 but then increased 20 percent by 1971. In addition, food retailers report that local delivery costs to retail stores have increased substantially in recent years.

Table 9.--Beef and Pork: Net farm value and commercial production, 1962-71

Year	Beef		Pork	
	Net farm	Commercial	Net farm	Commercial
	value <u>1/</u>	production	value <u>1/</u>	production
	Cents <u>2/</u>	Mil. lbs.	Cents <u>2/</u>	Mil. lbs.
1962 ...:	55.2	14,931	30.1	11,229
1963 ...:	48.4	16,049	27.4	11,863
1964 ...:	46.2	18,037	26.8	12,019
1965 ...:	51.8	18,325	38.1	10,736
1966 ...:	52.3	19,493	42.2	11,130
1967 ...:	53.0	19,991	34.8	12,377
1968 ...:	56.7	20,662	34.5	12,867
1969 ...:	62.2	20,960	42.3	12,774
1970 ...:	61.5	21,472	39.5	13,248
1971 ...:	67.9	21,697	32.3	14,606

1/ Payment to farmer for quantity of live animal equivalent to 1-pound of retail cuts--2.28 pounds of choice beef and 1.97 pounds of hog--less an allowance for byproducts.

2/ Per retail pound

Table 10.--Beef and pork price spreads and selected marketing costs, 1962-71

Year	Farm-retail price spreads		Hourly earnings		
	Beef	Pork	Meat packing	Meat processing	Food retailing
	Cents	Cents	Dollars	Dollars	Dollars
1962 ...:	26.5	28.7	2.77	2.55	1.83
1963 ...:	30.1	29.2	2.82	2.64	1.90
1964 ...:	30.3	29.1	2.91	2.72	1.98
1965 ...:	28.3	27.7	2.99	2.78	2.06
1966 ...:	30.1	31.8	3.09	2.88	2.13
1967 ...:	29.6	32.4	3.24	3.03	2.23
1968 ...:	29.9	32.9	3.45	3.22	2.38
1969 ...:	34.0	32.0	3.66	3.45	2.54
1970 ...:	37.1	38.5	3.98	3.65	2.70
1971 ...:	36.4	38.0	4.17	3.92	2.91
Prices of supplies and services bought by marketing firms			Rail freight rates for dressed meats		
Containers, packaging			Fuel, power and light		
			Rentals and services		
----- Index 1967 = 100 -----					
1962 ...:	96	100	84		120
1963 ...:	95	99	86		117
1964 ...:	96	98	88		113
1965 ...:	97	99	91		104
1966 ...:	99	99	95		100
1967 ...:	100	100	100		100
1968 ...:	100	99	106		103
1969 ...:	104	99	113		107
1970 ...:	108	108	120		117
1971 ...:	114	121	128		121 <u>1/</u>

1/ Preliminary

Price spreads fluctuate quarterly around the upward trend. Quarterly variations reflect, in part, the effects of price adjustments occasioned by seasonal changes in marketings of beef and pork and seasonal shifts in consumer demand. Additional fluctuations are due to lags in the timing of price adjustments at various market levels. The combined effects of all factors—increasing costs, supply and demand shifts, and lags in price response—are reflected in price spreads. Their individual effects are difficult to separate and analyze.

Farm-Carcass and Carcass-Retail Spreads for Beef

There are two major components of the farm-retail spread for beef. They are the farm-carcass spread and

carcass-retail spread (table 11). The farm-carcass spread covers approximate costs of marketing and slaughtering operations, while the carcass-retail spread covers costs of breaking the carcass, transporting, local delivery, retail cutting and packaging, as well as retailing costs.

The annual average farm-carcass spread for beef has fluctuated narrowly between 6 and 7 cents per retail pound since 1962 except for last year when it rose to 7.7 cents. The carcass-retail spread for beef fluctuated around 23 cents per retail pound between 1963-68. However, as shown in figure 1 the carcass-retail spread rose sharply in 1969 to a higher plateau, reflecting changes in retailer pricing and rising marketing costs.

In the first quarter of 1972, the carcass retail spread for beef averaged 33.0 cents per retail pound, surpassing

Table 11.--Price spreads for beef, quarterly, 1962-72

Year	Carcass-retail spread				
	1st	2nd	3rd	4th	Annual
	quarter	quarter	quarter	quarter	average
----- Cents per retail pound -----					
1962	19.5	20.7	19.2	19.9	19.9
1963	23.3	23.1	21.7	24.7	23.2
1964	24.0	23.5	21.2	24.1	23.2
1965	21.9	20.2	22.7	23.7	22.1
1966	21.4	24.6	24.2	25.5	23.9
1967	24.1	22.4	22.1	24.3	23.2
1968	23.0	23.4	23.4	24.0	23.5
1969	23.9	23.1	31.2	31.9	27.5
1970	29.5	30.0	29.6	32.4	30.3
1971	27.4	28.5	29.3	29.2	28.7
1972	33.0				
----- Cents per retail pound -----					
Year	Farm-carcass spread				
	1st	2nd	3rd	4th	Annual
	quarter	quarter	quarter	quarter	average
----- Cents per retail pound -----					
1962	7.1	6.9	6.5	6.0	6.6
1963	6.5	7.2	6.8	7.2	6.9
1964	7.7	7.6	6.7	6.3	7.1
1965	6.4	6.1	6.4	6.0	6.2
1966	6.1	6.0	6.2	6.4	6.2
1967	6.3	6.4	6.3	6.5	6.4
1968	6.4	6.4	6.4	6.3	6.4
1969	6.4	6.1	6.9	6.3	6.5
1970	7.2	6.0	6.9	7.0	6.8
1971	7.9	8.1	7.5	7.5	7.7
1972	7.7				

PRICE SPREADS FOR BEEF

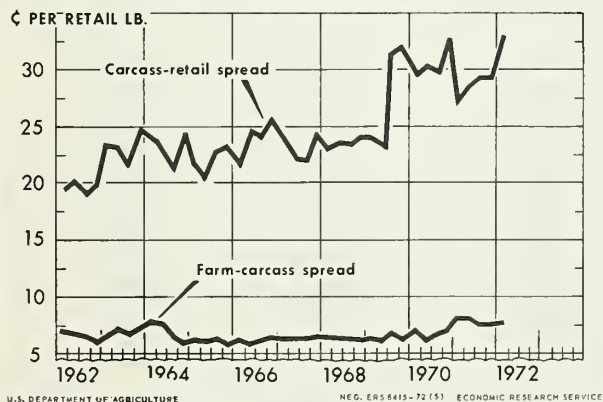


Figure 1

its previous high of 32.4 cents in the last quarter of 1970.

Farm-Wholesale and Wholesale-Retail Spread for Pork

The farm-retail spread for pork is divided into the farm-wholesale spread and the wholesale-retail spread.

The farm-wholesale spread for pork covers approximate costs for marketing and slaughtering hogs, curing, smoking and processing the pork products, and shipping to major consuming centers. Since 1962, the farm-wholesale spread for pork has increased about 4 cents per retail pound (fig. 2 and table 12).

The wholesale-retail spread covers costs of local delivery to retail stores, and retailing, including some cutting and packaging. The wholesale-retail spread for pork rose nearly 6 cents per retail pound between 1962 and 1970, but sharp increases in 1966 and again in 1970

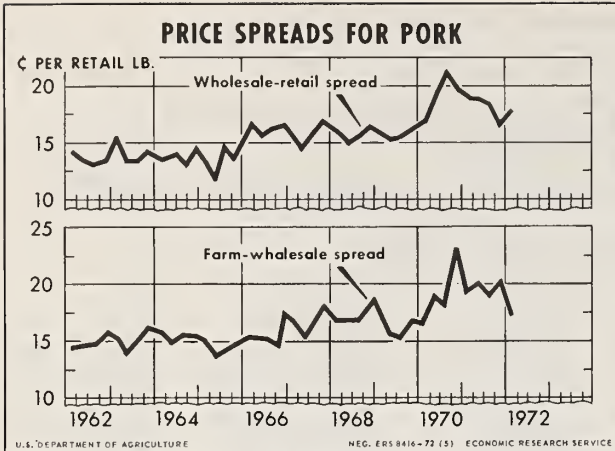


Figure 2

accounted for nearly all the rise. In the first quarter of 1972, the wholesale-retail spread for pork averaged 17.3 cents per retail pound, lower than any quarter since early in 1970.

Interpreting Price Spreads

For pork, the farm-retail spread divides about equally into the farm-wholesale, and wholesale-retail components. For beef, the farm-carass spread is about one-fifth of the total farm-retail spread. These proportions diverge because of differences in market levels where retailers make the bulk of their beef and pork purchases. Most purchases are made from the packer for beef, but at a further processing level for pork.

Thus, the farm-wholesale spread for pork can be interpreted as representing an approximate

Table 12.--Price spreads for pork, quarterly, 1962-72

Year	Wholesale-retail spread				
	1st	2nd	3rd	4th	Annual
	quarter	quarter	quarter	quarter	average
----- Cents per retail pound -----					
1962	14.2	13.6	13.1	13.3	13.6
1963	15.2	13.5	13.4	14.1	14.0
1964	13.6	13.9	13.0	14.3	13.7
1965	13.1	11.7	14.5	13.6	13.2
1966	16.3	15.6	16.3	16.5	16.1
1967	15.7	14.3	16.0	16.8	15.7
1968	16.0	15.1	15.6	16.4	15.7
1969	15.7	15.4	15.9	16.1	15.8
1970	17.1	19.4	21.0	19.8	19.3
1971	19.0	18.9	18.5	16.5	18.2
1972	17.7				
----- Cents per retail pound -----					
Year	Farm-wholesale spread				
	1st	2nd	3rd	4th	Annual
	quarter	quarter	quarter	quarter	average
----- Cents per retail pound -----					
1962	14.6	14.9	14.9	15.7	15.1
1963	15.4	14.2	14.9	16.1	15.2
1964	15.9	14.8	15.5	15.5	15.4
1965	15.0	13.8	14.4	14.7	14.5
1966	15.4	15.3	14.7	17.3	15.7
1967	16.7	15.5	16.7	18.0	16.7
1968	16.7	17.0	16.7	18.3	17.2
1969	17.0	15.9	15.3	16.7	16.2
1970	16.6	18.7	18.3	23.1	19.2
1971	19.6	20.0	19.1	20.2	19.8
1972	17.3				

packer-processor margin, and the wholesale-retail spread as representing delivery cost and retailers' margin.

Similarly, the farm-carcass spread for beef can be interpreted as representing the approximate packer margin, and the carcass-to-retail spread as representing shipping, warehousing, and delivery cost along with the retailers' in-store margin. However, retailers report their in-store margin is about one-third less than the carcass-retail spread, mainly because the spread includes transportation costs for dressed beef shipped from principal cattle feeding and meat packing centers to consuming centers. In addition, many retailers buy closely-trimmed primal and subprimal cuts as well as dressed carcass beef, at correspondingly higher prices.

Retailers report that they have been buying an increasing proportion of their beef as subprimals and fabricated cuts in recent years. Also, there has been considerable shifting of beef slaughter operations toward the West and Southwest. The longer distance shipments to consuming centers, coupled with additional labor costs for breaking and cutting the beef before purchase by retailers, have increased the prices paid to packers by retailers for beef and narrowed their in-store margins. These factors contribute to changes in packers' spreads and the spreads for shipping and retailing dressed beef that are not fully depicted in the widening carcass-retail spread. Additional studies are being made to measure the effects of these changes on the beef price spread.

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ABSTRACT: *Growing concern over the need for bargaining power of farmers has led to proposals for creation of bargaining board systems. An analysis was made of alternative operating policies for such a board if established in the western late potato system. Of the policies tested, those based on acreage and revenue increases gave results most favorable to producers. The results imply that a bargaining board in the industry could increase revenue per unit of production, but restrictions on resource use would be necessary. The extent of gains obtainable in a commodity system would depend on its particular supply and demand characteristics.*

Key Words: *Pricing, farmer bargaining power, marketing associations, simulation.*

Background

Collective farmer bargaining is increasingly being proposed as a means for improving farm prices and incomes. The growing interest in farmer bargaining power has resulted in various Federal and State legislative proposals.

The Agricultural Fair Practices Act of 1967 attempts to increase farmers bargaining power by eliminating some "unfair" trade practices affecting agricultural producers and their producer associations. It contains provisions to prohibit any handler or processor from:

1. Interfering with a producer joining a cooperative.
2. Discriminating against a producer because of cooperative membership.
3. Coercing a producer to terminate such membership.
4. Making false reports about, or interfering with, cooperatives.
5. Conspiring with any other person to do any such act.

Proposals

A proposed National Agricultural Bargaining Act of 1968 was designed to create a 2-level national collective bargaining system for determining "fair" farm prices. Known as the Mondale bill, and reintroduced in 1971 as the National Agricultural Bargaining Act, the legislation proposed creation of "farmer-elected marketing committees to bargain and negotiate with processors and other buyers for decent and adequate prices on a commodity-by-commodity basis." At the regulatory level, a National Agricultural Relations Board (NARB) would operate in a manner similar to the National Labor Relations Board. It would conduct a referendum, at the request of a representative group of producers of a commodity whose price is below a "fair and reasonable" level, to determine if producers of that commodity favor establishing a representative marketing committee. The NARB would define the boundaries, size, and composition of the product area to be included in the

referendum. At the operational level, the bill would create producer marketing committees, generally called marketing boards, upon the the initiative approval of producers of a commodity, nationally or in an appropriate area. The marketing committee and a committee of purchasers would be required to bargain in good faith to establish terms of sale. If no agreement was reached within a specified time period, the NARB would appoint a joint settlement committee to make binding decisions on disputed issues.

A producer marketing committee, as defined in the bill, would be empowered to establish minimum price and nonprice terms of sale through negotiations based upon size, grade, quality, and other appropriate factors affecting the sale of the commodity. All producers would share the costs of operating the marketing committee, and all producers and purchasers would be bound by the agreed-upon price and non-price terms. The marketing committee could establish marketing allotments, with or without acreage or production limitations, subject to approval by producers in referendum. A marketing allotment would be developed to bring supply in line with demand at the negotiated price.

Another bill, the National Agricultural Marketing and Bargaining Act of 1971, known as the Sisk bill, proposes a different approach to achieving bargaining power for farmers. This bill was referred to the House Committee on Agriculture on April 21, 1971 and hearings were held by the Subcommittee on Domestic Marketing and Consumer Relations in September and October of 1971. The Sisk bill, as introduced, provides for negotiations between a qualified association having binding contracts with its producer members and handlers as individual entities rather than as a committee of purchasers. A National Agricultural Bargaining Board would qualify bargaining associations and see that good faith bargaining occurred. The association bargaining would not necessarily represent all producers, but enough to make it an effective agent. No agreement would be required under the Sisk bill. The association could contract to supply the entire needs of a handler, the

handler could not negotiate with others while negotiating with a qualified association, and no better terms could be offered to nonmember producers. They may effectively force settlement and create uniform terms throughout the market, but on the surface appears less rigid than control features of the Mondale bill.

While several different forms of bargaining systems have been proposed for increasing farmer bargaining power, there are a number of questions regarding the effectiveness of bargaining in raising producer prices and incomes. Many commodities are produced in widely scattered areas having different harvest seasons and possibly unique characteristics favoring different final product uses for the commodity. In these cases, bargaining efforts would be hampered by lack of widespread agreement on bargaining purposes and goals. This leads to a question of whether a bargaining unit covering only part of the U.S. production of a commodity can be effective. Another question concerns the relative effectiveness of different policy goals a bargaining unit could adopt.

This article summarizes an evaluation of a farm bargaining board operating in a manner similar to that proposed under the Mondale bill. A report detailing the assumptions, method of analysis, and evaluation of results is available.¹

Western Late Potato System

The western late potato production marketing system was used to analyze the results of establishing a commodity bargaining board. This system possesses characteristics thought to be favorable to bargaining board success. These characteristics include: (1) price fluctuations due to variation in yearly production; (2) different final market forms for late potatoes used as food—fresh, frozen, dehydrated, and chips; (3) A relatively well defined production area with the entire group of producers facing similar production and market conditions; (4) importance of the crop in terms of income and share of the total U.S. potato market; and (5) widespread experience with market order programs.

An economic model was developed to represent the many complex relationships within and between the production and marketing segments of the western late potato industry. Closest relationships exist between current production and prices as well as between current prices and production in following periods. The sectors are also interrelated through the effect of production variations on quantities going into different uses. Processing and other marketing costs connect farm level and final product prices. The price established for contract production is a direct result of interaction between the producer and the processors.

Within the sectors, interactions exist between the regional production areas. The model allowed for the effects of actions taken by a bargaining board in the western late potato industry on average prices received by competing producers. It also accounted for the actions of producers in other areas.

In the western late potato system a large portion of the interaction between the production and marketing sectors occurs through growers contracting production for sale to processors at a predetermined base price. Processors use contracts to assure themselves of potatoes suited to their quantity and quality needs. Farmers are guaranteed a market for the portion of their production contracted. These processor contracts generally specify a base price for field-run potatoes pegged on the quality of delivered potatoes. For example, the base price may require 50 percent U.S. no. 1's with 1-cent price adjustments for each percentage point variation in the portion grading U.S. no. 1. Contract terms vary annually as well as among processors for a given year.

Location of processors usually limits the individual producer to a few firms with which to contract his production. The alternative to contracting requires the individual to grow potatoes for the open market and assume the price risk which falls on the processor under a contract. Many farmers prefer to contract enough acreage to cover variable production costs for their entire acreage and gamble on the market price for their remaining acreage. The greater financial resources of processing firms probably make them better able than individual producers to absorb the price risk.

Operation of a Bargaining Board

The analysis assumed that a bargaining board would negotiate price and other terms of trade with processors and first handlers for the entire western late potato crop prior to planting time. The board would negotiate with handlers to establish a base price for all field-run potatoes sold, a marketing margin for potatoes marketed fresh, and the quantity sold fresh annually or seasonally. Bargaining board actions, assumed necessary to make such negotiations effective, include the use of negotiable production quotas to control total acreage planted, and negotiable marketing certificates, issued to handlers, to control annual or seasonal fresh market sales at a level consistent with negotiated prices.

The use of production and marketing quotas in combination overcomes some of the problems of using either alone. Production quotas control supply more effectively than acreage allotments which do not prevent the use of more inputs to increase production. Negotiable production quotas allow the market to determine the most efficient location of potato production and facilitate entry of new producers or expansion of efficient operators.

¹Armbruster, W.J., L. Garoian, A.N. Halter, and J.G. Youde, "Simulation of Farm Bargaining Board Policies in the Western Late Potato System," Oregon State Agr. Exp. Sta. Tech. Bul. 119, Corvallis, 1972.

Possible operating goals of the potato bargaining board were assumed to include:

1. Increased stability of prices received by producers.
2. Increased average level of prices or income received.
3. Annual increases in prices or incomes received.
4. Increased or stabilized quantity marketed fresh or processed to achieve more efficient operation.
5. Increased or stabilized per capita consumption.
6. Annual increases in western acreage.

Evaluation of Bargaining Board Policies

Computer simulation was used to analyze the bargaining board goals listed above.² Values were generated for variables of interest to the parties concerned with bargaining: producers who are interested in quantities produced and prices received; processors and handlers who are most concerned with quantities utilized, retail prices, and farmers' prices; and consumers affected by retail prices and quantities going into different uses. The values represented results expected if a bargaining board were established and operated for a period of years.

Bargaining board policies were tested by projecting operation of a board from 1968 to 1980. A base run, representing a projection of the existing system, was made to provide a standard for evaluating the operation of the board. Most of the 6 bargaining board goals specified above were tested by simulating results for different levels, of the assumed goals. For example, annual increases in western acreage of 1 to 6 percent were tested;

Results of Board Policies

The results were analyzed by comparing the 1968-80 average values of the variables for different levels of each goal with those for the base run. One level was chosen as best for each of the policies. The level selected was generally the one resulting in the highest average gross revenue for producers.

Results for 3 selected policies are summarized in table 13 for variables most important to western producers and reflecting the greatest effects. The price stability policy was designed to attain a constant price received for all years from 1968 to 1980. To achieve constant prices, it was necessary to adjust production and quantities sold fresh. The revenue increase policy was designed to achieve a specified percentage increase in gross revenue from one year to the next. Such increases were attained either through increased prices received, increased quantities sold, or some combination of these. The acreage increase policy consisted of increasing acreage by a given percentage from one year to the next.

²Details of the simulation model are in author's unpublished dissertation, *Simulation of Farm Bargaining Board Policies in the Western Late Potato System*, Oregon State Univ., Corvallis, 1971.

Prices and revenues followed from market demand conditions. These policies represent the range of results and include the 2 determined to be most effective. The results are shown as percentage changes from the average base values of the variables to their average values at the selected level of each policy.

Price Received and Gross Revenue

The weighted average price received by producers over the test period was highest for the revenue increase policy (17.6 percent above the base), and lowest for the price stability policy (3.7 percent below the base) compared with the current system. The weighted average price over the period measures the returns per unit of potatoes produced, thus accounting for the amount of production resources used. The highest weighted average price received occurred under the revenue increase policy because this policy involved using the least production resources (western production 16.0 percent below the base) of all policies tested.

The average gross revenue was less under all bargaining board policies than in the base run, partly because greater resources would be used under the current system. The average gross revenue over the period was greatest for the acreage increase policy (0.7 percent below the base), followed closely by the revenue increase policy (1.0 percent below the base). But the quantity produced under the acreage increase policy was much larger than under the revenue increase policy, resulting in a much lower weighted averaged price.

Acreage and Production

All 3 bargaining board policies resulted in a decrease in acreage and production of western potatoes, because the board restricted expansion compared with what the present system would generate. The largest acreage and production occurred under the price stability goal, although both averaged 5-6 percent below the projected values that would result under the current system. Producers would fare better under the current system than under the price stability policy, which would result in an 8.9 percent drop in revenue and a 3.7 percent decrease in average price received. Although production and acreage also were less under the other 2 policies than under the current system, producers would receive higher prices and nearly the same gross revenue under a bargaining board.

Quantity Marketed and Retail Price

The quantities marketed fresh under the revenue increase and the acreage control policies were less than for the current system, while the price stability policy resulted in a 12 percent increase in fresh market sales. Consumer prices for fresh potatoes increased 3 percent under the revenue increase policy, reflecting the decreased quantity available. However, retail prices of frozen products under the revenue increase policy were below those projected for the current system.

Table 13.--Average results of 3 alternative marketing board policies for the western late potato industry, projected for 1968-80

Variables	Change from current system under specified policies--		
	Price stability, \$3.10 per cwt.	Revenue increase, 12 percent annually	Acreage increase, 2 percent annually
		Percent	
Western acreage	-5.7	-16.0	-6.4
Western production	-5.4	-16.0	-6.5
Western weighted average price received	-3.7	17.6	6.2
Western gross revenue	-8.9	-1.0	-0.7
Fresh utilization	12.0	-5.2	-0.1
Other utilization	-17.8	-15.2	-8.4
Fresh retail price	-1.2	3.0	1.2
Frozen retail price	9.9	-1.8	0.9

Summary of Results

Using production and weighted average price received as the criteria for evaluation, the acreage increase policy seems to offer the best results in terms of benefits to producers and acceptability to handlers and consumers. Reductions in acreage and production below those that the current system would generate would be moderate compared with the other policies. Average gross revenue to producers under the acreage increase policy is higher relative to the current system than under any of the policies tested, and price is second only to that for the revenue increase policy. Consumer prices for fresh potatoes increased more under the revenue increase policy than under the acreage control policy, but retail price for frozen products was less under the revenue policy.

Conclusions and Implications

The results imply that a bargaining board in the western late potato system could increase the average

price per unit produced. But the gain would require restriction of resource use in the system, and would reduce management freedom in determining total production for the system. However, the assumed negotiable production and marketing quotas would allow transfer of resources among producers. Lower cost producers would be expected to bid away production quotas from higher cost producers.

The costs assessed on producers for board operation would have to be deducted from the weighted average price received to determine the actual benefit of bargaining board operations. This deduction probably would not affect the general conclusion, but the costs of operating different policies might affect the choice of the best policy to use.

Based on this study, bargaining boards may offer producers of other commodities a means of obtaining prices and incomes higher than under the current system. The extent of gains obtainable would depend on supply and demand characteristics of the particular commodity system and the policies adopted.

1. "The Freight Car Supply Problem and Car Rental Policies," U.S. Dept. of Agr., Econ. Res. Ser., MRR-953, April 1972.

Pricing policies are discussed as they relate to the supply and allocation of freight cars for the movement of agricultural products. Incentives guiding the allocation of empty cars--per diem, time-and-mileage car rentals, car service orders, and demurrage--have not always been adequate to ensure an equitable distribution of cars. The incentive per diem plan instituted in 1970 by the Interstate Commerce Commission is intended to increase freight car utilization by speeding up the return of general purpose boxcars during the grain harvest season when the shortage is most severe. Despite improved pricing policies, demand for freight cars will probably continue to exceed supply for several years. However, growing use of other modes of transportation for hauling agricultural products, improved railroad operations, and addition of more specialized equipment should reduce the demand for general purpose boxcars.

2. "Retail Demand for Fresh Apples," U.S. Dept. of Agr., Econ. Res. Ser., MRR-952, April 1972.

Seasonal retail demand for fresh apples was estimated for 1963/64-1969/70 with linear regressions of U.S. average monthly retail prices on monthly net per capita fresh movement. After remaining essentially unchanged from 1963/64 through 1965/66, demand increased during 1966/67-1968/69. By 1968/69, a given level of per capita consumption was maintained at a price about 3 cents a pound higher (deflated) than in 1963/64. The apparent, sharp decrease in demand that followed in 1969/70 probably reflected lower quality more than a real change in demand.

3. "Price Control Programs, 1917-71," U.S. Dept. of Agr., Econ. Res. Ser., AER-223, April 1972.

Inflationary forces leading to the imposition of price controls by the Government in four periods since 1914 are outlined. Basic concepts about price controls are discussed, and pricing standards and pricing techniques are described. Price movements before, during, and after World War I, World War II, the Korean Conflict, and the current Vietnam-related program are analyzed. Control of marketing margins on foods seems to have been successful in the three earlier experiences with price controls.

4. "Organization and Practices in Selected Terminal Wholesale Flower Markets in the South," U.S. Dept. of Agr., Econ. Res. Ser., MRR-951, March 1972.

This report--part of a nationwide study of wholesale floral markets--includes data on 22 flower wholesalers in four major markets. In the national study, 136 floral wholesalers were interviewed in 13 markets. The wholesale flower markets in Baltimore, Washington, Atlanta, and Dallas-Fort Worth were found to be highly specialized. Carnations, chrysanthemums, gladioli, and roses account for two-thirds of total gross

sales and 80 percent of sales of perishables. Approximately half the major cut flowers handled were from California. Local production accounted for about a fourth and Florida productions nearly a fifth of the volume handled. Nearly all California flowers were shipped to market by air freight. Most Florida flowers were shipped by truck. Wholesalers reported little change in type of customer or type of product sold in the past 5 years.

5. "Cost of Instantizing Nonfat Dry Milk," U.S. Dept. of Agr., Econ. Res. Ser., MRR-949, March 1972.

The economic engineering method is used to develop processing and fixed investment costs for instantized nonfat dry milk powder. Total cost is analyzed on the basis of milk powder processed and packaged in one type of consumer package--a 20-quart (4-pound) carton. Results indicate that raw material costs represent more than four-fifths of total cost, with packaging costs accounting for 10 percent, and instantizing and administrative expenses making up the balance. Cost centers are developed for administration, powder handling, instantizing, and packaging.

6. "Synthetics and Substitutes for Agricultural Products: Projections for 1980," U.S. Dept. of Agr., Econ. Res. Ser., MRR-947, March 1972.

This report describes the present market penetration of substitutes and synthetics available for food and beverages and for apparel and furnishings. Synthetics and substitutes have captured about 21 percent of retail citrus beverage purchases; margarine has more than two-thirds of the table spread market; and other foods and beverages, including whipping cream and sweeteners have lost sales to new products. Nearly half of all broadwoven goods are made from synthetic fibers or a blend containing synthetic and natural fibers. At least two levels of market penetration by synthetics and substitutes are projected for 1980 for red meat and poultry, dairy products, leather, wool, cotton, sweeteners, and citrus products. Changes in land resources are shown for each projected level of market penetration. Agriculture is expected to maintain its position as a major supplier of our food and fiber needs in 1980. Synthetics are not expected to cause major adjustment problems for agriculture through the 70's.

7. "Impact of the Expanded Food and Nutrition Education Program on Low-Income Families: An Indepth Analysis," U.S. Dept. of Agr., Econ. Res. Ser., AER-220, February 1972.

This report evaluates the Expanded Food and Nutrition Education Program (EFNEP) of the Extension Service of the U.S. Department of Agriculture (USDA). Officials responsible for policy and leadership have a continuing need for information on program operations and factors associated with its effectiveness in reaching the target population and improving food consumption practices. The report measures the success of the program in teaching better nutrition and food consumption practices to families in poverty by evaluating food knowledge and consumption practices of the homemaker upon first entering the program and again after having participated for a 6-month period. Also, the study relates socioeconomic

characteristics of homemakers and their families and other program variables to initial status and subsequent changes in food consumption practices.

8. "A Survey of Central Milk Programs in Midwestern Food Chains," U.S. Dept. of Agr., Econ. Res. Ser. in cooperation with the Agricultural Experiment Stations of the North Central States and Kentucky, MRR-944, December 1971.

A major structural change is occurring in the food chain segment of milk marketing channels in the North Central Region. Food chains increasingly are initiating central milk programs which represent various degrees of integration. Respondents in a survey gave savings obtained as the major reason for having central milk programs. Sources of savings included dealing with fewer suppliers, lower milk costs, and reduced delivery services. Savings in distribution costs was the main reason for chains operating their own milk plants. If the forces encouraging integration by food chains continue at the rate that existed at the time of the survey, 1968-69, a continuation of the recent structural trend can be expected.

9. "A Case Study of Food Dating in Selected Chicago Supermarkets," U.S. Dept. of Agr., Econ. Res. Ser., MRR-943, November 1971.

This report summarizes the findings of a USDA case study of a Chicago grocery chain's food dating program in low-, middle-, and higher income area stores in Chicago, Ill. Slightly more than half the 1,700 female shoppers contacted indicated their awareness of the program, but only 20 percent correctly interpreted open dates as the pull date, or the last day a product can be sold. About two-thirds of those aware of the program and willing to be questioned in greater detail said they had used dates at least once. Bread and milk were items most frequently mentioned, followed by refrigerated dough products, other dairy products, and eggs. Store managers reported beneficial in-store effects--specifically, easier stock rotation. They reported the program was helpful to customers, and generally saw no disadvantages of open dating.

10. "Micronaire Blending of Medium-Staple Cottons--An Economic Evaluation," U.S. Dept. of Agr., Econ. Res. Ser. and Agr. Res. Ser., MRR-935, August 1971.

This report compares the performance of blended Micronaire mixes of cotton with that of natural mixes of the same average reading to determine the economic feasibility of using cottons "discounted" in price for high- or low-Micronaire readings. Cottons ranging from 3.2 to 5.2 in Micronaire were selected from the 1968-69 crop and spun into 40s carded yarn. Twenty-three mixes were spun--five natural Micronaire mixes and 18 blended. In addition to the test results, the report demonstrates a method of potential usefulness to commercial mills for determining appropriate price discounts for cottons of high- or low-Micronaire readings.

11. "Economics of Sweetener Marketing: An Annotated Bibliography of Selected References," U.S. Dept. of Agr., Econ. Res. Ser., ERS-474, January 1972.

Bibliography lists selected references on the marketing of important sweeteners used in the United States. Entries are categorized under sugarcane, raw can sugar, refined cane sugar, sugarbeets, beet sugar, corn sweeteners, noncaloric sweeteners, honey, maple products, sorghum, utilization, and general.

12. "The Foodservice Industry: Type, Quantity, and Value of Foods Used," U.S. Dept. of Agr., Econ. Res. Ser., Stat. Bull. No. 476, November 1971.

This publication reports on phase II of a two-phase study of the market for food served away from home. The objective of phase II was to determine the type, quantity, and value of foods used by foodservice operators so as to provide better understanding of food demands and needs of this market on a commodity basis. Estimates presented show the quantity and value of individual foods and food groups received by foodservice operators in 1969. These estimates are based on reported quantities and values of individual foods received during a 7-day period by a national sample of nearly 3,000 foodservice operators in the 48 contiguous States.

13. "Cotton Gin Operating Costs in the Midsouth, 1968-69 and 1969-70," U.S. Dept. of Agr., Econ. Res. Ser., MRR-942, December 1971.

Gin operating costs in the Midsouth were analyzed for 1968-69 and 1969-70 on the basis of a sample of 48 plants representing over 8 percent of the total ginning capacity of the region. Capacity utilization rates and ginning volumes were down in 1969-70, compared with 1968-69, while per bale operating costs were generally higher. Average capacity utilization declined from 54 percent in 1968-69 to 49 percent in 1969-70, while average total cost per bale increased from \$16.33 to \$18.05. All overhead costs were up in 1969-70, due mainly to reduced volumes; variable costs rose as a result of general price increases.

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Table 14.--Farm food products: Retail price, farm value, byproduct allowance, farm-retail spread, and farmer's share of retail price, first quarter 1972

Product	Farm equivalent	Retail unit	Retail price	Gross farm value	Byproduct allowance	Net farm value 1/	Farm-retail spread	Farmer's share	Cents		Percent
Beef, Choice grade	2.28 lb. Choice cattle	Pound	114.4	79.4	5.7	73.7	40.7	64			
Lamb, Choice grade	2.45 lb. lamb	Pound	114.4	67.1	6.5	60.6	53.8	53			
Pork	1.97 lb. hog	Pound	79.0	47.3	3.3	44.0	35.0	56			
Butter	Milk for butter	Pound	87.5	111.7	52.5	59.2	28.3	68			
Cheese, American proc.	Milk for American cheese	1/2 pound	53.6	24.6	.8	23.8	29.8	44			
Ice cream	Cream, milk, and sugar	1/2 gallon	85.9	--	--	29.1	56.8	34			
Milk, evaporated	Milk for evaporating	14 1/2-ounce can	20.2	9.7	.2	9.5	10.7	47			
Milk, fresh:											
Home delivered	4.39 lb. Class I milk	1/2 gallon	68.5	--	--	30.0	38.5	44			
Sold in stores	4.39 lb. Class I milk	1/2 gallon	59.8	--	--	30.0	29.8	50			
Chicken, frying	1.41 lb. broiler	Pound	41.4	--	--	19.9	21.5	48			
Turkey	1.28 lb. turkey	Pound	55.5	--	--	28.9	26.6	52			
Eggs, Grade A Large	1.03 dozen	Dozen	51.4	--	--	28.3	23.1	55			
Bread, white:											
All ingredients	U.S. farm ingredients 2/	Pound	24.5	--	--	3.6	20.9	15			
Wheat	.867 lb. wheat 2/	Pound	--	3.0	.4	2.6	--	11			
Bread, whole wheat	.708 lb. wheat 2/	Pound	39.3	--	--	3.1	36.2	8			
Cookies, sandwich	.528 lb. wheat 2/	Pound	55.3	--	--	6.4	48.9	12			
Corn flakes	2.87 lb. yellow corn 3/	12 ounces	31.7	5.8	3.9	1.9	29.8	6			
Flour, wheat	6.85 lb. wheat 2/	5 pounds	59.9	23.8	3.0	20.8	39.1	35			
Rice, long grain	1.59 lb. rough rice	Pound	24.1	8.9	.8	8.1	16.0	34			
Apples	1.04 lb. apples	Pound	22.2	--	--	7.0	15.2	32			
Grapefruit	1.03 grapefruit	Each	16.4	--	--	3.7	12.7	23			
Lemons	1.04 lb. lemons	Pound	34.4	--	--	9.3	25.1	27			
Oranges	1.03 dozen oranges	Dozen	91.9	--	--	20.0	71.9	22			
Cabbage	1.08 lb. cabbage	Pound	15.5	--	--	4.3	11.2	28			
Carrots	1.03 lb. carrots	Pound	22.8	--	--	8.2	14.6	36			
Celery	1.08 lb. celery	Pound	28.0	--	--	9.4	18.6	34			
Cucumbers	1.09 lb. cucumbers	Pound	32.7	--	--	14.9	17.8	46			
Lettuce	1.88 lb. lettuce	Head	35.8	--	--	13.5	22.3	38			
Onions	1.06 lb. onions	Pound	14.5	--	--	4.6	9.9	32			
Peppers, green	1.09 lb. peppers	Pound	48.9	--	--	18.1	30.8	37			
Potatoes	10.42 lb. potatoes	10 pounds	83.6	--	--	19.1	64.5	23			
Tomatoes	1.18 lb. tomatoes	Pound	46.7	--	--	14.0	32.7	30			

Continued--

Table 15.--Farm food products: Retail price, farm value, farm-retail spread, and farmer's share of retail price, January-March 1972, October-December 1971 and January-March 1971

Product 1/	Retail unit	Retail price				Farm value				Farm-retail spread				Farmer's share			
		I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	
		Cents															
		Percent															
Beef, Choice	Pound	114.4	106.6	100.2	73.7	69.9	64.9	64.9	40.7	36.7	35.3	64	66	65			
Lamb, Choice	Pound	114.4	112.2	106.5	60.6	56.1	52.9	52.9	53.8	56.1	53.6	53	50	50			
Pork	Pound	79.0	71.9	69.2	44.0	35.2	30.6	30.6	35.0	36.7	38.6	56	49	44			
Butter	Pound	87.5	87.5	87.7	59.2	58.0	62.0	62.0	28.3	29.5	25.7	68	66	71			
Cheese, American process	1/2 pound	53.6	53.2	52.0	23.8	22.9	22.5	22.5	29.8	30.3	29.5	44	43	43			
Ice cream	1/2 gallon	85.9	85.7	85.4	29.1	28.3	29.2	29.2	56.8	57.4	56.2	34	33	34			
Milk, evaporated	14 1/2-ounce can	20.2	20.2	19.3	9.5	9.2	9.0	9.0	10.7	11.0	10.3	47	46	47			
Milk, fresh:																	
Home delivered	1/2 gallon	68.5	67.8	67.1	30.0	29.7	29.5	29.5	38.5	38.1	37.6	44	44	44			
Sold in stores	1/2 gallon	59.8	59.2	58.3	30.0	29.7	29.5	29.5	29.8	29.5	28.8	50	50	51			
Chicken, frying	Pound	41.4	40.5	40.0	19.9	17.4	19.4	19.4	21.5	23.1	20.6	48	43	48			
Turkey	Pound	55.5	55.6	54.4	28.9	28.6	27.4	27.4	26.6	27.0	27.0	52	51	50			
Eggs, large Grade A ..	Dozen	51.4	52.0	56.5	28.3	29.4	32.9	32.9	23.1	22.6	23.6	55	57	58			
Bread, white:																	
All ingredients	Pound	24.5	24.5	24.8	3.6	3.5	3.5	3.5	20.9	21.0	21.3	15	14	14			
Wheat	Pound	---	---	---	2.6	2.6	2.6	2.6	---	---	---	11	11	10			
Bread, whole wheat ..	Pound	39.3	39.4	38.1	3.1	3.1	3.1	3.1	36.2	36.3	35.0	8	8	8			
Cookies, sandwich	Pound	55.3	54.8	53.2	6.4	6.6	6.4	6.4	48.9	48.2	46.8	12	12	12			
Corn flakes	12 ounces	31.7	32.2	34.1	1.9	1.8	2.5	2.5	29.8	30.4	31.6	6	6	7			
Flour, white	5 pounds	59.9	59.9	59.4	20.8	20.4	21.0	21.0	39.1	39.5	38.4	35	34	35			
Rice, long grain	Pound	24.1	24.0	23.6	8.1	7.7	7.8	7.8	16.0	16.3	15.8	34	32	33			
Apples	Pound	22.2	20.5	21.4	7.0	7.3	6.4	6.4	15.2	13.2	15.0	32	36	30			
Grapefruit	Each	16.4	18.1	14.4	3.7	4.4	3.0	3.0	12.7	13.7	11.4	23	24	21			
Lemons	Pound	34.4	33.4	32.3	9.3	9.7	9.7	9.7	25.1	23.7	22.6	27	29	30			
Oranges	Dozen	91.9	99.8	85.6	20.0	23.6	21.1	21.1	71.9	76.2	64.5	22	24	25			
Cabbage	Pound	15.5	13.8	13.0	4.3	4.7	3.8	3.8	11.2	9.1	9.2	28	34	29			
Carrots	Pound	22.8	19.7	17.3	8.2	7.5	5.3	5.3	14.6	12.2	12.0	36	38	31			
Celery	Pound	28.0	22.0	17.7	9.4	8.3	4.1	4.1	18.6	13.7	13.6	34	38	23			
Cucumbers	Pound	32.7	25.7	29.6	14.9	7.5	8.6	8.6	17.8	18.2	21.0	46	29	29			
Lettuce	Head	35.8	40.5	30.4	13.5	16.9	13.4	13.4	22.3	23.6	17.0	38	42	44			
Onions	Pound	14.5	14.6	13.1	4.6	4.7	3.7	3.7	9.9	9.9	9.4	32	32	28			
Peppers, green	Pound	48.9	45.0	47.5	18.1	16.1	24.8	24.8	30.8	28.9	22.7	37	36	52			
Potatoes	10 pounds	83.6	81.5	81.0	19.1	18.6	20.5	20.5	64.5	62.9	60.5	23	23	25			
Tomatoes	Pound	46.7	46.7	45.4	14.0	20.5	21.2	21.2	32.7	26.2	24.2	30	44	47			

Continued--

Table 15.--Farm food products: Retail price, farm value, farm-retail spread, and farmer's share of retail price, January-March 1972, October-December 1971 and January-March 1971

Products	Retail unit	Retail price				Farm value				Farm-retail spread				Farmer's share			
		I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	I : 1972	I : 1972	IV : 1971	I : 1971	I : 1972
																	Percent
Peaches, canned.....	No. 2½ can	37.3	37.3	36.4	7.3	7.3	7.3	7.5	30.0	30.0	28.9	20	20	21			
Pears, canned.....	No. 2½ can	52.9	53.0	52.5	8.5	8.5	8.5	13.1	44.4	44.5	39.4	16	16	25			
Beets, canned.....	No. 303 can	20.2	19.9	19.0	1.3	1.3	1.3	1.3	18.9	18.6	17.7	6	7	7			
Corn, canned.....	No. 303 can	24.7	24.7	24.8	2.7	2.7	2.7	2.6	22.0	22.0	22.2	11	11	10			
Peas, canned.....	No. 303 can	26.6	26.5	25.8	4.1	4.1	4.1	3.9	22.5	22.4	21.9	15	15	15			
Tomatoes, canned.....	No. 303 can	22.6	22.5	22.5	2.7	2.7	2.7	2.6	19.9	19.8	19.9	12	12	12			
Lemonade, frozen.....	6-ounce can	14.4	14.2	13.7	3.4	3.4	3.4	3.2	11.0	10.8	10.5	24	24	23			
Orange juice, frozen..	6-ounce can	25.0	24.9	21.6	9.4	8.0	8.0	6.5	15.6	16.9	15.1	38	32	30			
Potatoes, french fried, frozen.....	9 ounces	16.5	16.4	16.4	2.2	2.5	2.5	2.6	14.3	13.9	13.8	13	15	16			
Peas, frozen.....	10 ounces	22.2	22.2	21.8	3.8	3.8	3.8	3.7	18.4	18.4	18.1	17	17	17			
Beans, dried.....	Pound	24.3	23.8	20.6	12.3	11.6	11.6	10.1	12.8	12.2	10.5	51	49	49			
Margarine.....	Pound	33.2	33.2	32.0	9.9	10.5	10.5	9.9	23.3	22.7	22.1	30	32	31			
Peanut butter.....	12-ounce jar	50.5	50.1	49.3	16.8	16.7	16.7	14.8	33.7	33.4	34.5	33	33	30			
Salad and cooking oil.....	24-oz. bottle	65.8	65.5	61.3	15.4	16.2	16.2	16.2	50.4	49.3	45.1	23	25	26			
Vegetable shortening..	3 pounds	98.6	98.7	94.8	34.3	36.5	36.5	35.1	64.3	62.2	59.7	35	37	37			
Sugar.....	5 pounds	69.1	68.7	67.4	29.5	29.6	29.6	29.7	39.6	39.1	37.7	43	43	44			
Spaghetti, canned.....	15½-oz. can	19.1	19.1	19.1	2.1	2.0	2.0	2.1	17.0	17.1	17.0	11	10	11			

1/ Primary products in the farm-food market basket.

2/ Preliminary.

Table 16.--The market basket of farm foods by product group: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, quarterly 1971 & 1972

Item	1971				1972
	I	II	III	IV	I
Dollars					
Retail cost					
Market basket	1,217.16	1,244.31	1,260.01	1,252.48	1,287.52
Meat	365.72	372.40	380.56	382.67	411.51
Dairy	222.12	223.86	225.42	225.47	227.10
Poultry	48.72	49.92	51.34	49.41	50.35
Eggs	40.71	36.87	37.13	37.52	37.06
Bakery and cereal:					
All ingredients	190.38	192.31	192.74	190.92	191.19
Grain	---	---	---	---	---
Fresh fruits	49.91	56.03	62.14	53.34	53.04
Fresh vegetables	77.31	87.97	82.48	84.17	87.30
Proc. fruits and veg. ...	122.18	123.70	125.95	126.12	126.73
Fats and oils	43.43	44.17	44.78	45.32	45.41
Miscellaneous	56.68	57.08	57.47	57.54	57.83
Farm value					
Market basket	467.46	474.21	482.22	484.29	509.68
Meat	197.73	201.14	210.54	214.87	238.67
Dairy	106.03	105.48	104.97	105.75	107.85
Poultry	23.71	23.87	25.44	21.64	24.39
Eggs	23.74	20.91	21.18	21.22	20.41
Bakery and cereal:					
All ingredients	30.26	30.61	29.90	29.48	29.89
Grain	22.65	23.26	22.09	21.79	22.35
Fresh fruits	14.63	17.54	18.76	16.68	15.22
Fresh vegetables	26.47	29.33	24.16	28.77	27.26
Proc. fruits and veg. ...	22.47	22.93	23.11	22.76	23.45
Fats and oils	13.47	13.29	15.12	14.10	13.42
Miscellaneous	8.95	9.11	9.04	9.02	9.12
Farm-retail spread					
Market basket	749.70	770.10	777.79	768.19	777.84
Meat	167.99	171.26	170.02	167.80	172.84
Dairy	116.09	118.38	120.45	119.72	119.25
Poultry	25.01	26.05	25.90	27.77	25.96
Eggs	16.97	15.96	15.95	16.30	16.65
Bakery and cereal:					
All ingredients	160.12	161.70	162.84	161.44	161.30
Grain	---	---	---	---	---
Fresh fruits	35.28	38.49	43.38	36.66	37.82
Fresh vegetables	50.84	58.64	58.32	55.40	60.04
Proc. fruits and veg. ...	99.71	100.77	102.84	103.36	103.28
Fats and oils	29.96	30.88	29.66	31.22	31.99
Miscellaneous	47.73	47.97	48.43	48.52	48.71
Farmer's share					
Percent					
Market basket	38	38	38	39	40
Meat	54	54	55	56	58
Dairy	48	47	47	47	47
Poultry	49	48	50	44	48
Eggs	58	57	57	57	55
Bakery and cereal:					
All ingredients	16	16	15	15	16
Grain	12	12	11	11	12
Fresh fruits	29	31	30	31	29
Fresh vegetables	34	33	29	34	31
Proc. fruits and veg. ...	18	19	18	18	19
Fats and oils	31	30	34	31	30
Miscellaneous	16	16	16	16	16

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